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FINAL REPORT for AFOSR Grant No. F496209510096

***Project Title:* WORKSTATION FOR PROCESS ANIMATION AND VIDEO ANALYSIS**

As proposed, the infrastructure for computation, process animation and graphical analysis has been greatly improved by acquiring new equipment in the Process Modeling Laboratory. A silicon Graphics Indigo 2 workstation with enhanced RAM and storage capability, a Tektronix Dye-sublimation Color Printer (Model Phaser 440) and two SUN X-terminals together with many other peripheral devices were purchased from this grant. Special software have been acquired to create process animation videos and graphical data analysis. A special algorithm and computer code has also been developed in-house to analyze data from the experimental videos, particularly for temperature field visualization and calculations of temperature gradients and fluctuations. Results obtained using these equipment have been presented at several technical meetings including AFOSR Grantees Conference, ASME meetings and crystal growth conferences.